

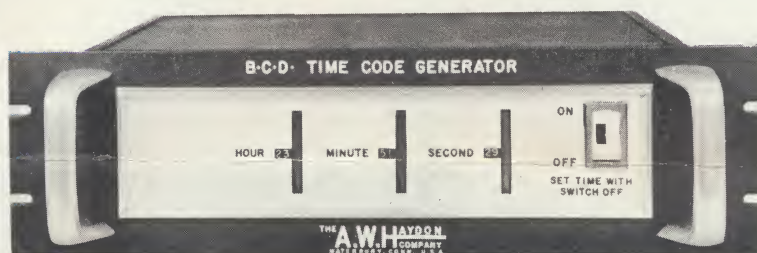
This describes an A. W. Haydon Company Product for which a Catalog Bulletin has not been issued.

#133

August, 1966

ELECTROMECHANICAL TIME CODE GENERATORS

Series K42601 and K42602



Here are two new series of electromechanical time code generators specifically designed to fill many commercial/industrial applications at about half the cost of comparable electronic units.

Typical applications include digital time inputs to data handling systems, digital computers, illuminated time displays, telemetering systems, tape punchout devices, checkout equipment, and direct printout devices. They can also be used as master clocks to drive slave units. The K42601 series supplies time information in straight decimal switch patterns, and the K42602 series provides binary coded decimal.

Seven standard models are available in either code series, offering various combinations of readouts from 59 minutes, 59 seconds, to 369 days, 23 hours, 59 minutes, 59 seconds. Code output is clearly displayed at the front panel on counters having 3/16" white characters on a black background. Setting adjustments can be made conveniently in either direction through front-mounted knurled wheels.

These time code generators employ a synchronous motor-driven repeat cycle timer which rapidly steps a preset code pattern of output switches. An isolated "inhibit" switch is provided, having form C contacts that can be used either "open" or "closed" during transfer. Code transfer time varies from 50 ms maximum, when one time group changes, to 300 ms maximum when five time groups change. Running accuracy is synchronous with line frequency.

All units operate on 115 VAC, 60 Hz. nominal. Code and inhibit switches are rated 6-20 ma resistive @ 115 VAC and 6-50 ma resistive @ 30 VDC. Modular construction is used throughout, and all models fit standard 19" racks. These generators can be custom-adapted to provide special code outputs if required.

For complete specifications and catalog part number designations, refer to drawing K42601 or K42602.

NOTE: Information contained herein is for general reference only and is subject to change without notice.

REVISIONS

SYM	DESCRIPTION	DATE	APPROVED
A	REDRAWN TO TWO SHEETS	2-13-65	WJ
B	SEE SHEET 1 OF 2	CO 24885	WJ
C	REVISED NOTES 3.1, 3.2, 3.4, 2	CO 25683	WJ
D	TITLE WAS ENCODER-TIME	CO 25991	WJ
E	REMOVED EXAMPLE ADDED 3.2.3	(CO 26212) GW	WJ
F	SEE SHEET NO. 1	(CO 26836) GW	WJ

OUTPUT CODE ORIENTATION CHART

TIME GROUP DIGIT	SECONDS				MINUTES				HOURS				DAYS			
	TENS	UNITS	TENS	UNITS	TENS	UNITS	TENS	UNITS	TENS	UNITS	TENS	UNITS	TENS	UNITS	TENS	UNITS
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERMINAL VALUE	4	2	1	8	4	2	1	8	4	2	1	8	4	2	1	8

BINARY "0" INDICATES OPEN CIRCUIT.

BINARY "1" INDICATES CLOSED CIRCUIT.

TOGGLE SWITCH (UNIT OFF)

CODE COMMON

CONNECTOR, PLUG CONTACT NUMBERS

CODE CHART & WIRING

A.C. INPUT
115 V., 60 CPS

SPECIFICATIONS:

1. GENERAL DESCRIPTION:

This is an electromechanical Time Code Generator which uses a one switch synchronous motor-driven Repeat Cycle Timer for a time base.

With power applied to contact numbers 39 and 40 of the Connector Plug and the lighted toggle switch in the "on" position, the unit operates by rapidly stepping the code output switch pattern, per the Code Chart, at the designated connector contact number.

A visual display corresponding to the time code output is seen as white characters on a black background through transparent plastic windows in the front panel.

Setting adjustment is accomplished by manual rotation of the knurled setting wheels in the front panel in either direction with the toggle switch in the "off" position.

An isolated "inhibit" switch is provided with Form "C" contact operation so that it may be used either "open" or "closed" during transfer.

The connector contact number for each output value remains the same regardless of code capacity.

2. ENCLOSURE AND FINISH:

- 2.1 Enclosure: Aluminum paneled - mechanism dust tight.
- 2.2 Finish: Gray enamel.
- 2.3 Handles: Silver anodized aluminum.
- 2.4 Display Windows: Transparent optical grade plexiglas or equivalent.
- 2.5 Visual Display: 3/16" wide white characters on black background.
- 2.6 Setting Wheels: 3/16" wide knurled O.D. recessed below outer surface of panel.
- 2.7 Rocker Type Toggle Switch: White rocker with red lighted insert as "on" indicator.
- 2.8 Marking: Black silk screened to include readout legend, identification, setting instruction and connector identification numbers as shown. Part number ink stamped.

3. OPERATIONAL SPECIFICATIONS:

- 3.1 Code & Inhibit Switches: Precious metal stationary brush-rotating commutator type rated: 6-20 ma. @ 115 VAC resistive 6-50 ma. @ 30 VDC resistive Code common input is energized only when unit is "on".
- 3.2 Accuracy:
 - 3.2.1 Running: Synchronous with line frequency.
 - 3.2.2 Setting: Within one base time increment.
 - 3.2.3 Setting Instruction: Set unit with switch "off" to desired time. Energize unit until the shortest base time increment transfers (seconds or minutes). Turn unit "off" at transfer point. (NOTE: Unit may advance one step instantaneously with the application of power, wait until the RCT pulser advances the readout to turn unit "off".) When reading agrees with true time, energize the unit.
- 3.3 Code Transfer Time: Varies from 30 MS. maximum when one time group changes to 300 MS. maximum when five time groups change.
- 3.4 Power Supply: 105-125 VAC, 58-62 CPS.
 - 3.4.1 Steady State Power Drain: 10 V.A. max.
 - 3.4.2 Peak Power Drain: 12.5 V.A. for the base time increment during transfer plus a maximum of 30 V.A. when all time groups change on PL unit and for 100 MS. max. duration after adjustment.
- 3.5 Design Life: One year continuous duty at rated load.

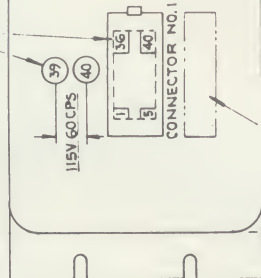
K42602

ITEM NO.	QTY. REQ'D.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
LIST OF MATERIALS OR PARTS LIST			
THE A. W. HAYDON COMPANY			
WATERBURY 20, CONNECTICUT, U.S.A.			
TIME CODE GENERATOR			
B.C.D. CODE			
APPROVALS	DATE	CODE IDENT. NO.	SIZE
DRAWN BY G.C.W.	2-23-65	82227	C
CHECKED			
APPROVED			
APPROVED	1-1-66		
APPROVED			
NO. REQ'D.	NEXT ASSEMBLY	DWG. NO.	SCALE
			2 OF 2

REVISIONS

SYM	DESCRIPTION	DATE	APPROVED
A	REDRAWN TO TWO SHEETS	02-24-65	WJ
B	23.8 MAX WAS 9 MAX, ADDED CRYSTALS FOR READOUT NO. 5 IN FRONT VIEW	02-24-65	WJ
C	ADDED NOTE TO CODE CAPACITY	02-24-65	WJ
D	ADDED NOTE TO CODE CAPACITY	02-24-65	WJ
E	CORRECTED AN IN. TO 1/2 IN. CAP NOTE	02-24-65	WJ

CONTACT NO. 5 CONNECTOR PLUG (SHOWN FOR REF. ONLY)



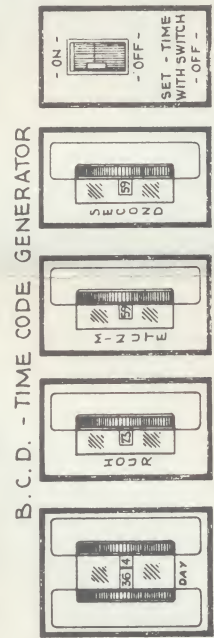
1" MIN. CLEARANCE BOTH SIDES

17" REF.

INK STAMP UNIT - PART NUMBER

READOUT POSITIONS (REF. ONLY)

B. C. D. - TIME CODE GENERATOR



SILKSCREEN NAMEPLATE IN APPROX. LOCATION

19"

K42602

E

TIME CODE GENERATOR - B. C. D. CODE OUTPUT

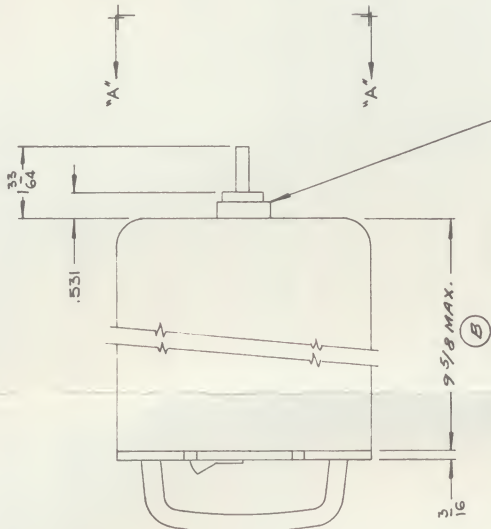
DESIGNATION	CODE CAPACITY *					READOUT POSITION
K42602-P1	369 Days	23 Hours	59 Minutes	59 Seconds		1-2-3-4-5
K42602-P2	369 Days	23 Hours	59 Minutes	59 Seconds		1-2-3-4
K42602-P3	30 Days	23 Hours	59 Minutes	59 Seconds		2-3-4-5
K42602-P4	30 Days	23 Hours	59 Minutes	59 Seconds		3-4-5
K42602-P5	23 Hours	23 Hours	59 Minutes	59 Seconds		3-4-5
K42602-P6	23 Hours	23 Hours	59 Minutes	59 Seconds		3-4
K42602-P7			59 Minutes	59 Seconds		3-4

* ON K42602-P1 & P2, THE NEXT STEP AFTER MAXIMUM

CODE CAPACITY WILL BE 001 DAYS

ON K42602-P3 & P4 THE NEXT STEP AFTER MAXIMUM

CODE CAPACITY WILL BE 01 DAYS



CONNECTOR PLUG - CINCH MANUFACTURING CO. P/N 242-40-01-031 TO MATE WITH SOCKET P/N 241-40-01-001 NOTE: HOOD WITH CABLE CLAMP IS AVAILABLE FOR CONNECTOR SOCKETS SEE CINCH MFG 749 SERIES P/N'S

ITEM NO.	QTY.	REQ. D.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
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LIST OF MATERIALS OR PARTS LIST

APPROVALS	DATE	THE A. W. HAYDON COMPANY
DRAWN BY GCW	2-24-65	WATERBURY 20, CONNECTICUT, U.S.A.
CHECKED SJA	3/2/65	
APPROVED WJ	3/10/65	
TIME CODE GENERATOR		
B. C. D. CODE		

CODE IDENT. NO.	SIZE	DWG. NO.	K42602
82227	C		
DATE	1-21-66	DATE	
APPROVED		APPROVED	
SCALE	HALF	WEIGHT	
SHEET	1	OF	2